

### REMARKS

By a paper mailed December 22, 2005 in the file of this application the Examiner requested that the response previously filed in this action be supplemented by a consideration of a newly cited patent to Shah, U.S. Patent No. 6,916,621. This document is intended to respond to the rejection based on the Shah reference.

The Shah reference simply does not disclose all of the limitations of the present claims of the patent application. In the passage cited by the Examiner in the Shah specification, Shah does teach that a calibration spot can be placed in each spot on the array. This passage does appear in Shah at Column 6, lines 55-65. Thus, in the array of Shah, there is a calibration spot or sequence in each of the elements of the array. However, that is a different invention than claimed here, and not within the scope of the claimed invention of this application.

As has previously been discussed in this application, there are broadly two kinds of microarrays, those in which oligonucleotides or other biological molecules are created separately and "spotted" onto an array substrate, and another category in which the oligonucleotides or other array elements are constructed in place on the array. The constructed in place arrays generally have a much higher fidelity, reproducibility, and usability for complex scientific experiments, as compared to so-called "spotted" arrays.

The claims of the present invention are intended to recite specifically a constructed array in which the oligonucleotides are constructed on the common planar substrate. Words to that effect have been to each of the claims of the application. The prior art does not disclose other methodologies for constructing multiple species of oligonucleotides in a single element of a synthesized sequence array. The constraints and methods used to construct different oligonucleotides in a synthesized array are clearly much different than techniques usable in a spotted array, such as disclosed in Shah.

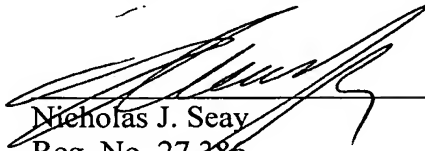
The reference to Shah cited above specifically refers to a spotted array and the spotting of comparative sequences onto that array. Shah is not anticipating of any of the claims of the present invention, and Shah involves a distinct technology that does not make obvious the claims of the present invention.

Wherefore it is believed that these supplemental remarks should be considered during the reconsideration of this patent application.

Appl. No. 10/674,766  
Response Dated: April 24, 2006  
Reply to Office Action dated: December 22, 2005

A separate petition for extension of time is submitted herewith so that this response will be considered as timely filed. Please charge the extension fee to Deposit Account No. 17-0055.

Respectfully submitted,



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